

SDMS US EPA REGION V -1

SOME IMAGES WITHIN THIS
DOCUMENT MAY BE ILLEGIBLE
DUE TO BAD SOURCE
DOCUMENTS.

III. Step-II Reslurry.

We believe that the use of hot water for reslurrying P-2 and for washing in the P-2 reslurry centrifuges is beneficial in reducing the P-4 content of the "Hex". More important however, it seems to us that hot water changes the viscosity and characteristics of the P-2 reslurry mixture just enough to make it more satisfactorily handled through the pumps and pipe lines and hence offers possibilities for increasing the capacity of these machines which are now limiting production.

IV. Reduction of the "Insoluble Matter" in Finished P-3.

Most of the plants have had some trouble in consistently meeting the specification of 4.25% "Insoluble Matter" in the finished product. This "Insoluble Matter" has been identified as P-2.

Monsanto has for some time believed that the failure to complete the reaction in the Step-III reactors was due to lumps of P-2 which were not properly disintegrated in or slurried with solvent. Originally we proposed either a milling or sifting step before making up the batch.

For about a week we have been trying to accomplish the same purpose by mixing the batch more thoroughly with solvent in the make-up tank. A mixing period of three hours has been generally used (but never less than two hours). Of thirteen batches tried this way all were well below 4.25% insoluble matter and the large majority were around 2.50 to 2.75%.

V. Change in Proportions of Step-III Filtrate.

To reduce the amount of Step-III solvent to be distilled and hence lengthen the life of the evaporators, Monsanto for the last two or three weeks has reduced the proportion of fresh 80% S-1 charged from 50% fresh (or distilled) S-1 with 50% filtrate to 33% fresh (or distilled) S-1 with 67% filtrate. Some batches have been made where 25% fresh and 75% filtrate was used and the results were equal to those obtained with the 50 - 50 mixture.

We believe that within limits this solvent has little effect on the "Insoluble Matter" in the P-3 and propose to use solvent containing 25% fresh or distilled 80% S-1 and 75% filtrate. It is our belief that the 25% - 75% mixture was used by du Pont in the original pilot plant work but was abandoned in the full size plant.

J. F. Stickley
J. F. Stickley
Production Superintendent